We claim:

1. A high temperature resistant coating composition having a total mass percentage of 100, said coating composition comprising:

A) a silicone resin having a mass percentage of approximately 10 to 17.5;

B) an epoxy resin having a mass percentage of approximately 3 to 15;

C) an epoxy curing agent having a mass percentage of approximately 6 to 30;

D) a filler package comprising:

(1) aluminum flake having a mass percentage of approximately 1 to 10;

(2) titanium dioxide having a mass percentage of approximately 35 to 45; and

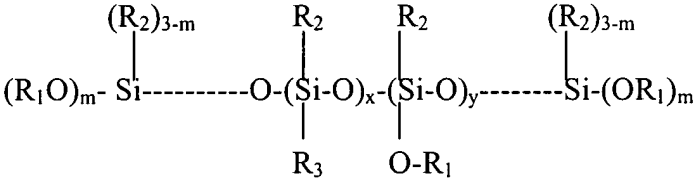
(3) micaceous iron oxide having a mass percentage of approximately 7 to 20;

E) an optional catalyst having a mass percentage of approximately 0 to 1, said catalyst promoting hydrolysis and condensation reactions of said silicone resin;

F) an optional additive having a mass percentage of approximately 0 to 5, said additive facilitating mixing or adjusting rheology of said coating composition; and

G) an optional organic solvent having a mass percentage of approximately 0 to 7.

2. The coating composition according to claim 1, said silicone resin having a formula of:



where R_1 is selected from the group consisting of H, CH_3, and C_2H_5;

R_2 is selected from the group consisting of alkyl, acyclic, aryl, CH_3, and Phenyl ($-C_6H_5$);

R_3 is selected from the group consisting of alkyl, acyclic, aryl, CH_3, and Phenyl ($-C_6H_5$);

m is an integer selected from the group consisting of 1, 2, and 3;

x and y are integers where x+y is from 2 to 6000 and y/x is from 0.05 to 20;

wherein $R_2 = R_3$ or $R_2 \neq R_3$.

3. The coating composition according to claim 1, wherein said epoxy resin is selected from the group consisting of bisphenol A diglycidyl ether, bisphenol F diglycidyl ether, phenol novolac epoxy, cresol novolac epoxy, tris(hydroxylphenyl) methane triglycidylether, triglycidyl p-aminophenol, tetraglycidyl amine of methylenedianiline, 1,3,5-tris(2,3-epoxypropyl)-1,3,5-perhydrotriazine-2,4,6-trione (triglycidyl isocyanurate), and polyglycidylether of poly(4-hydroxylstyrene).

4. The coating composition according to claim 1, wherein said epoxy curing agent is selected from the group consisting of aliphatic amines, amidoamines, and cycloaliphatic amines.

5. The coating composition according to claim 1, wherein said aluminum flake is selected from the group consisting of leafing aluminum flakes or non-leafing aluminum flakes.

6. The coating composition according to claim 1, wherein said titanium dioxide is selected from the group consisting of rutile titanium dioxides and anatase titanium dioxides.

7. The coating composition according to claim 1, wherein said filler package optionally contains other fillers including mica, glass flakes, or a combination thereof.

8. The coating composition according to claim 1, wherein said catalyst is selected from the group consisting of zirconium octoate, cobalt octoate, zinc octoate, iron octoate, stannous octoate, or a commercial off-the-shelf catalyst.

9. The coating composition according to claim 1, wherein said additive is selected from the group consisting of a wetting agent, a dispersing agent, a deflocculating agent, a

thixotropic agent, a defoaming agent, a leveling agent, colorant, a coupling agent, and a combination thereof.

10. The coating composition according to claim 1, wherein said organic solvent dissolves said silicone resin and said epoxy resin simultaneously to form a uniform mixture.

11. The coating composition according to claim 10, wherein said organic solvent is selected from the group consisting of toluene and xylene.

12. The coating composition according to claim 1, wherein said coating composition is capable of resisting chemical attacks including sodium hydroxide and of resisting high temperature of 500°C or more.